

ABSTRACT OF THE DISCLOSURE

A DS-CDMA (Direct Sequence-Code Division Multiple Access) multi-user interference canceller cancels  
5 interference waves of a plurality of users. The DS-CDMA includes a variable gain controller for comparing reception characteristics of reception signals received from the plurality of users prior to interference cancellation processing with reception characteristics  
10 upon the interference cancellation processing and evaluating a comparison result, and controlling gains prior to baseband decoding of the reception signals so as to maximize improvements of the reception characteristics of the reception signals on the basis of an evaluation  
15 result. A CDMA multi-user system using the above canceller is also disclosed.